AMENDMENTS TO THE CLAIMS

Claim 1. (Currently amended). A method for manufacturing a multilayer ceramic substrate comprising:

providing a green laminate having a plurality of laminated green base layers containing a low-temperature-sinterable ceramic material including a glass component, a green constraining layer disposed to contact a principal surface of at least one layer of said green base layers and containing an inorganic material which does not sinter at the sintering temperature of said low-temperature-sinterable ceramic material, and at least one wiring conductor disposed in association with said green base layers; and

firing said green laminate at a ~~temperature~~ sintering profile at which said low-temperature-sinterable ceramic material sinters,

wherein said sintering profile, said low-temperature-sinterable ceramic material and said inorganic material are selected such that a reaction layer and a penetration layer are formed along an interface between the green base layer and the green constraining layer, in which the reaction layer is formed by a chemical reaction of the low-temperature-sinterable ceramic material and the inorganic material and the penetration layer is formed by penetration of the glass component into the green constraining layer without a chemical reaction. ~~chemically react with each other during said firing step to form a reaction layer along an interface between said green base layer and said green constraining layer.~~

Claim 2. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 1, wherein said low-temperature-sinterable ceramic material and said inorganic material chemically react with each other during said firing step to form a crystal phase from a component contained in said low-temperature-sinterable ceramic material and a component contained in said inorganic material.

Claim 3. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 2, wherein said low-temperature-sinterable ceramic material comprises borosilicate glass, and said inorganic material is at least one compound selected from the group consisting of spinel, mullite, magnesia, zirconia, zinc oxide, nickel oxide, lanthanum oxide, cobalt oxide, chromium oxide, titanium oxide, iron oxide, calcium oxide, silicon oxide, silicon carbide, boron carbide, tungsten carbide, silicon nitride and boron nitride.

Claim 4. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 2, wherein said low-temperature-sinterable ceramic material comprises alumina, and said inorganic material comprises magnesia or cobalt oxide.

Claim 5. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 1, wherein said low-temperature-sinterable ceramic material and said inorganic material chemically react with each other during said firing step such that a component contained in one of said low-temperature-sinterable ceramic material and said inorganic material diffuses, dissolves or forms a solid solution in a glassy or amorphous phase or a crystal phase included in the other of said low-temperature-sinterable ceramic material and said inorganic material.

Claim 6. (Currently amended). ~~The method for manufacturing a multilayer ceramic substrate according to Claim 5~~ A method for manufacturing a multilayer ceramic substrate comprising:

providing a green laminate having a plurality of laminated green base layers containing a low-temperature-sinterable ceramic material including a glass component, a green constraining layer disposed to contact a principal surface of at least one layer of said green base layers and containing an inorganic material which does not sinter at the sintering temperature of said low-temperature-sinterable ceramic material,

and at least one wiring conductor disposed in association with said green base layers; and

firing said green laminate at a sintering profile at which said low-temperature-sinterable ceramic material sinters,

wherein said sintering profile, said low-temperature-sinterable ceramic material and said inorganic material are selected such that a reaction layer and a penetration layer are formed along an interface between the green base layer and the green constraining layer, in which the reaction layer is formed by a chemical reaction of the low-temperature-sinterable ceramic material and the inorganic material and the penetration layer is formed by penetration of the glass component into the green constraining layer without a chemical reaction,

wherein said low-temperature-sinterable ceramic material and said inorganic material chemically react with each other during said firing step such that a component contained in one of said low-temperature-sinterable ceramic material and said inorganic material diffuses, dissolves or forms a solid solution in a glassy or amorphous phase or a crystal phase included in the other of said low-temperature-sinterable ceramic material and said inorganic material, and

wherein said low-temperature-sinterable ceramic material comprises borosilicate glass, and said inorganic material comprises alumina powder ~~has~~ having a particle size of about 100 nm or less.

Claim 7. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 1, wherein the temperature is raised at about 15°C/min. or less during said firing.

Claim 8. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 7, wherein the maximum temperature achieved during said firing is maintained for at least about 10 minutes.

Claim 9. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 8, wherein the maximum temperature achieved during said firing is maintained for about 30 to 60 minutes.

Claim 10. (Currently amended). The method for manufacturing a multilayer ceramic substrate according to Claim ~~10~~ 9, further comprising forming said green laminate.

Claim 11. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 1, wherein the maximum temperature achieved during said firing is maintained for at least 10 minutes.

Claim 12. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 11, wherein the maximum temperature achieved during said firing is maintained for about 30 to 60 minutes.

Claim 13. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 1, wherein said laminate has a green constraining layer at each end in the laminating direction of said laminate, and

said method further comprises removing, after said firing step, at least part of said reaction layer and said green constraining layer at each end in the laminating direction of said laminate.

Claim 14, (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 13, further comprising mounting at least one electronic component on an outer surface of the laminate after said firing.

Claim 15. (Original). The method for manufacturing a multilayer ceramic substrate according to Claim 14, further comprising forming said green laminate.

Claim 16. (Original) the method for manufacturing a multilayer ceramic substrate according to Claim 1, further comprising forming said green laminate.

Claim 17. (Original). A multilayer ceramic substrate produced by the method for manufacturing a multilayer ceramic substrate according to Claim 1.

Claim 18. (Original). An electronic device including the multilayer ceramic substrate according to Claim 17, and a motherboard for mounting said multilayer ceramic substrate.